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I & M Mark 978 Repair Kit (Sup)

Supplemental I & M Instructions for Mark 978 Sanitary Control Valve Repair Kit Installation

Please read these instructions carefully!

Your Steriflow product will provide you with long, trouble free service if it is correctly installed and maintained. Spending a few minutes now reading these instructions can save hours of trouble and downtime later. When making repairs, use only genuine Steriflow Valve parts, available for immediate shipment from the factory.

Preparing for Maintenance

Warning: be sure that there is not pressure in the valve before loosening any fitting or joint.

1. Close inlet shutoff valve and bypass valve.
2. Open the MK978-JD.
3. Allow pressure to bleed off downstream.
4. When pressure gauge shows there is no pressure in the valve, close outlet shutoff valve.
5. When lubricant is needed, use one that is compatible with both your process and the valve's seal (see nameplate). Consult the factory if unsure what lubricant to use.

Repair Kit Installation

Installation of the repair kit is possible without removing the body of the valve from the line. See Illustration and Parts List for part numbers and see Figure 1 for a detailed view of the stem assembly.

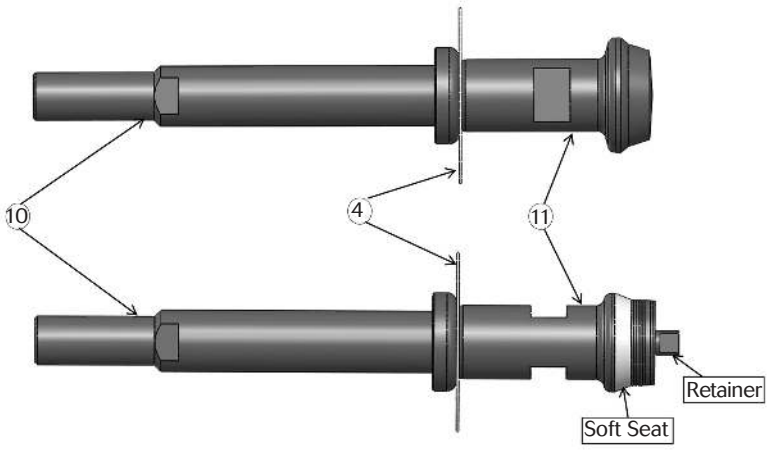


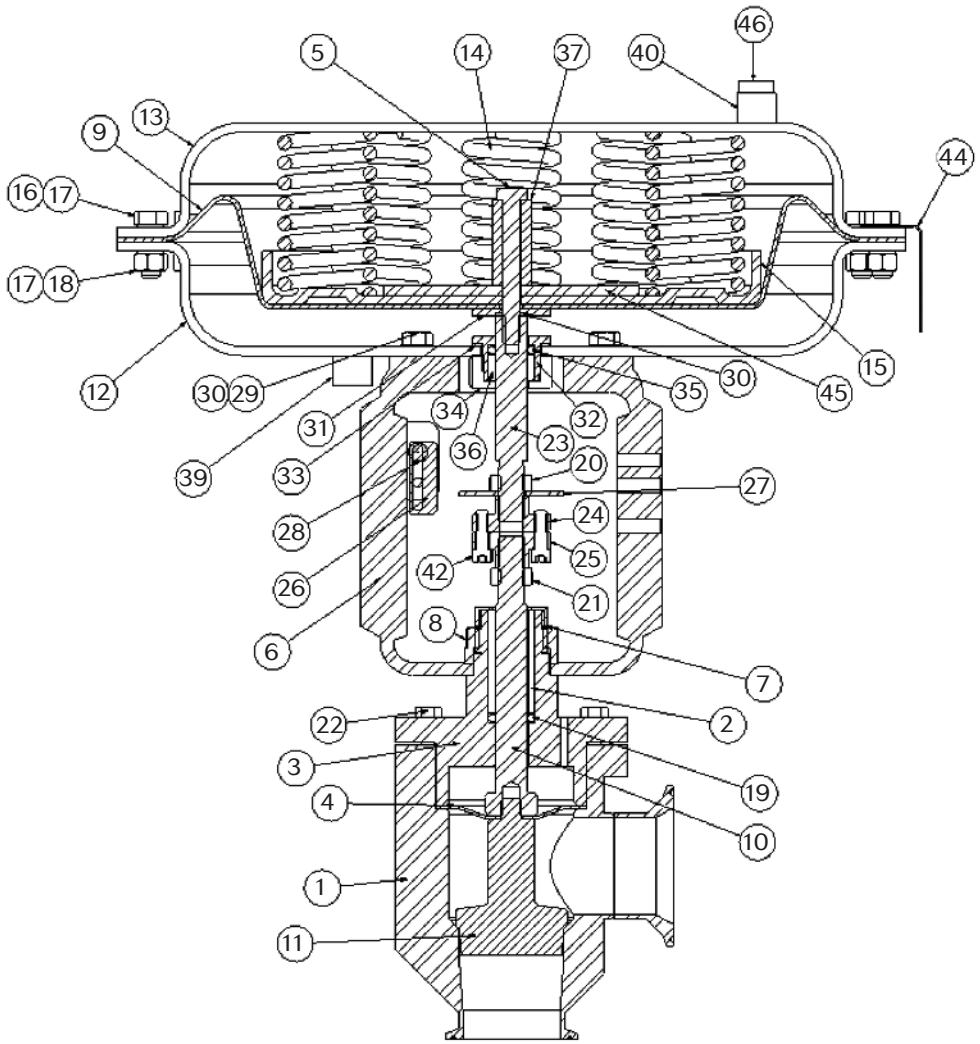
Figure 1: Examples of Hard and Soft Seat Plug/Stem Assemblies

1. Mark 978-JD must be in open position, plug (11) off the seat. Reverse acting valves need pressure applied to actuator to lift plug off seat.
2. Remove bonnet bolts (22) and separate body (1) from bonnet (3).
3. Remove air pressure from actuator, if applied.
4. Remove the bonnet and place the upper portion of the valve on a suitable work surface.
5. Loosen the jam nut* (21) on the upper stem (10).

*Left handed thread

6. Using a black Sharpie marker, mark the threads of the upper stem (10) at the point at which it starts to enter the lower stem connector (25).
7. Using a box wrench on the lower stem connector (25) and soft jaw pliers or a strap wrench on the upper stem (10), break the threaded connection* and remove the old stem and diaphragm assembly from the upper portion of the valve.
   7a. After removing the upper stem, remove and inspect the stem bushing (2), and the stem o-ring (19) underneath it. If either show signs of wear, you may want to consider replacing them as well.
8. Disconnect the upper stem connector (24) from the lower stem connector (25).
9. Transfer the black mark from the threads of the upper stem (10) of the plug/stem assembly that was removed from the valve onto the threads of the new upper stem (10) of the plug/stem assembly included with the repair kit.
10. Place plug/stem assembly (4/10/11) into the bonnet (3).
11. Install jam nut* (21) and lower stem connector (25) on to valve stem (10).
12. Mate the upper and lower stem connectors (24 & 25) by sliding the stem as appropriate. Secure the upper and lower stem connectors (24 & 25) with SHCS (42).
13. Place bonnet (3) and plug/stem into body (1).
14. Use the HHCS (22) lubricating them with White Knight Food Grade Anti-Seize or comparable lubricant and thread into body hand tight plus a ½ turn more to partially secure bonnet. Final torque will come later after the actuator is aligned.
15. Adjust actuator pressure appropriately so the plug is just touching the seat. Secure bonnet to body with HHCS (22), by cross-tightening bolts to 150 in-lbs.
16. If the valve is equipped with a positioner, follow the procedure to re-initialize the position with the new plug/stem assembly installed.

Illustration and Parts List



Item	Description	Item	Description	Item	Description
1	Body	15	Diaphragm Plate	29	HHCS
*2	Stem Bushing	16	HHCS	30	Fastener Seal
3	Bonnet	17	Washer	31	Seal Washer
*4	Diaphragm, Body	18	Nut	32	Gland
5	HHCS	*19	Stem O-Ring	33	Gland Gasket
6	Yoke	20	Jam Nut	34	Gland Nut
7	Lock Ring, Bushing	21	Jam Nut	35	Gland O-Ring
8	Lock Ring, Yoke	22	HHCS	36	Gland Bushing
9	Diaphragm, Actuator	23	Actuator Stem	37	Spacer (55M/85M)
10	Upper Stem	24	Stem Connector, Upper	39	Lower Case Bushing
*11	Plug	25	Stem Connector, Lower	40	Upper Case Bushing
12	Lower Actuator Case	26	Travel Scale	42	SHCS
13	Upper Actuator Case	27	Travel Indicator	44	Steriflow Name Plate
14	Spring	28	RHMS	45	Backing Plate (85M)
*	Recommended Spare Parts				

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